

Water Pollution Control Advisory Council (WPCAC) Meeting
May 9, 2002 9:30 a.m.-12:00 p.m.
Room 111 Metcalf Building

Attendees:

Council Members:

Richard Parks, Fishing Outfitters Association of MT
Dan Sullivan, Dept. of Agriculture
Mike McLane, Dept. of Natural Resources and
Conservation (DNRC)
Doug Parker, Hydrometrics
Robert Willems, Soil & Water Conservation District
Barbara Butler, Billings Solid Waste Division
Don Skaar, Dept. of Fish, Wildlife & Parks

Other Attendees:

Bob Raisch, Department of
Environmental Quality (DEQ)
Art Compton, DEQ
Chris Levine, DEQ
Abe Horpestad, DEQ
Bob Bukantis, DEQ
Mike Suplee, DEQ
Julie DalSoglio, EPA
Steve Gilbert, Helena Northern
Plains Resource Council
Mike Cornuier, Main
Technologies
Greg Petruska, Fidelity E&P Co.
Harmon Ranney, MCBNGA
Brenda Lindlief Hall, Tongue
River Water Users
Mark Fix, NPRC
Matt Clifford, Clark Fork
Coalition

Approval of Minutes

Chairman Richard Parks called the WPCAC meeting to order at 9:30 a.m. The council approved the minutes from the February 28, 2002 meeting.

Briefing on New Federal Arsenic Standard

Abe Horpestad said that a provision in the Water Quality Act (WQA) indicates the risk level for arsenic shall be one in a thousand unless EPA adopts a more stringent number in the Federal Register. EPA has chosen a more stringent number but it will not be effective until 2006. There are provisions in the Montana WQA that state that DEQ cannot be more stringent than the federal government; thus DEQ will not change the ambient standard until 2006. The MCL is currently 50 µg/l (ppb) and will be reduced to 10 µg/l. The current Montana ambient standard is 18 µg/l or 20 µg/l depending on surface or ground water. Around 2006 DEQ will adopt a modification to WQB-7 to incorporate the MCL 10 µg/l value.

Matt Clifford of the Clark Fork Coalition said that the statute says the Board shall set the standard at a one in a thousand risk level. According to the science it turns out that for arsenic the one in a thousand risk level is going to be around 3-5 ppb. The 18

ppb standard recommended by EPA and promulgated in 1992 was calculated with the available science at one in a hundred thousand and was not in compliance at that time. This is a solid case that present standards that do not comply with that law. The law stating that the state shall not be more stringent than federal standards does have a clause in it that says 'unless otherwise required by state law'. In this case it is clear that it is otherwise required. The federal standard of 10 µg/l is a drinking water standard, not an ambient water quality standard and may not be under that section of the law at all.

Abe Horpestad said that it is the Departments position that we were in compliance and went by the EPA's adopted risk level at the time the standards were set. The Department used the EPA risk evaluation to acquire the risk level and the relationship of one in a thousand to come up with the 18 µg/l for the ambient water quality standards. In theory, we could make the determination that in fact we do need to be more stringent. If we did that however, it could become a non-ending battle in terms of whether or not we were more stringent than the federal standards. The state law says that the Department shall use one in a thousand unless the federal guidance is more stringent. Regarding the clause in the law, we will have to get with the legal section because that is not how we have interpreted that law.

Doug Parker asked if the new 10 ppb standard is risk based and if there was a new revised human health risk analysis that goes along with it?

Abe Horpestad answered, yes there is a new human health risk analysis and it is cited in the standards. There are a lot of documents published in terms of available literature on the federal decision. From this data they came up with a 10 ppb based on one in a million. EPA does the risk-based analysis and modifies it in terms of cost.

Richard Parks said that there was a major debate over the legislatures deciding to set water quality standards statutorily. Part of the debate was whether or not the science justified the change. At that time a lot of people felt that it was inappropriate then, and not protective of public health. Given that MPDES discharge permits are written on a five-year cycle, wouldn't it be smart for the state of Montana to take a look at the 2006 effective date of the federal regulations and take advantage of this opportunity to start writing the new permits in terms of the new standard even though this would mean changing the Montana water quality standard now?

Abe Horpestad said that in order to change the permits the standard would have to be changed. There are provisions in the law, according to Matt Clifford, that would enable us to go around the more stringent than the federal standards requirement. We could go through and review all the data that was done by the federal agency to come to their conclusion and use that as the basis for justifying being more stringent than the federal agency. Possibly later this fall we could get started on such an endeavor.

Update of Total Maximum Daily Load (TMDL) Program

Bob Raisch said that the court ordered schedule that was developed 16 months ago changed the way DEQ does business on TMDLs. Completing all TMDLs by 2007 became the primary objective and priority. Steps have been taken to make the transition from the pre-court approach to the post-court approach and designing a basic approach to developing TMDLs. DEQ largely met the TMDL schedule for 2001. TMDLs were developed for three planning areas and the fourth planning area TMDL was not submitted because a reevaluation of the Lower Musselshell TMDL planning area indicated that a TMDL was not required. Instead a document justifying the decision was submitted. Future workload significantly increases due to the increase in the number of TMDLs required each year, implementation work that needs to be done for each, five-year reviews, and the management of the 319 grant program to fund TMDL projects. To meet the 2002 TMDL schedule DEQ needs to be fully staffed, better utilize contractors and build upon our partnerships with other agencies including EPA. It is difficult to find qualified, experienced people to fill the positions that will be immediately effective. An alternate pay plan is being adopted in hopes of attracting and retaining qualified employees. DEQ has identified needs for \$1.5 million in contractor support for consultants, conservation districts, and watershed groups for the next two to three years. DEQ is building on its relationship with EPA to move them from a strictly oversight position in regards to TMDLs to a partner that provides technical oversight, staff support, and financial resources. DEQ has determined that some adjustments need to be made to the schedule due to insufficient data, unworkable planning area sequences causing downstream TMDLs to be completed before upstream TMDLs, and some outside influences such as coal bed methane (CBM) development. Due to the lack of qualified staff, more contractors will be used. Local involvement is an important component of the TMDL program but can slow down the process. Subsequently, DEQ is taking a more of a leadership role in regard to TMDL development. DEQ still needs to develop a long-term strategy. One thing DEQ has done in regards to the long-term strategy is to put a proposal together to take to the upcoming legislature to extend the deadline for developing TMDLs from 2007 to 2012. DEQ feels that based on the amount of work it takes to develop a TMDL that the 2007 deadline is unrealistic.

Doug Parker asked if DEQ has contacted the plaintiffs or the court about the proposed schedule changes? Part of the court settlement was to submit a schedule. Now that DEQ is changing the schedule, it seems prudent to involve them in the process. The logic for making the changes is good but DEQ needs to be careful about presenting it to the public without having involvement from the plaintiffs who have a stake in it.

Bob Raisch said that the division administrator Art Compton has had some communications with the plaintiffs but this particular issue has not been discussed in detail. The district court looked at state law in regard to the 2007 deadline and DEQ feels that it is critical to change the law before there can be any real discussions with the plaintiffs. The changes in the schedule will be incorporated into the prioritization part of

the 303(d) list, so it will be subject to public review. The original schedule did have some language in it that provides some flexibility on changing the schedule.

Richard Parks said that the plaintiffs upon hearing the rationale of adjusting the completion dates within that 2007 deadline are unlikely to be upset about it as long as they understand the reasoning. It is prudent to explain that to the court and plaintiffs. Extending the schedule is more likely to upset the plaintiffs since it involves legislative action. DEQ would be wise to speak immediately with the court and the plaintiffs to get their opinions so when it is presented to the legislature it is more of a consensus proposal instead of proof that DEQ could not meet the schedule. If DEQ does not talk to them about this schedule change, they will be offended and against the entire process.

Barb Butler asked when DEQ requests extending the schedule to 2012, does this entail giving more years to each deadline? How are the extra five years going to be used?

Bob Raisch said that if the legislature passes the proposed time extension and the revised schedule is accepted in the context of the existing lawsuit, DEQ would reschedule some of the TMDLs to be completed so there were fewer to do each year.

Three-Year Review of Temporary Water Quality Standards for Streams in the New World Mining District of Park County

Abe Horpestad said that the council has received a briefing on this in terms of the history, the requirement under law for the three-year review, the progress toward meeting the final standards and whether or not the project is in compliance with its schedule. It is mostly in compliance with its schedule. There is some remediation work that has taken place and some improvements in the water quality. The Department does not feel that the standards should be modified at this time.

Richard Parks asked if the event that occurred this spring with the impoundment site for waste and its overtopping with water as the land application water flooding it would have any impact on water quality in the Fisher Creek drainage?

Abe Horpestad said that it would not improve it but whether it will have a measurable impact or not is currently under investigation.

Proposed Water Quality Standards for Electric Conductivity and Sodium Adsorption Ratio for the Tongue River, Powder River, Little Powder River, Rosebud Creek and their Tributaries

Abe Horpestad said that a revised set of rules came out on May 7, 2002. The standards for the CBM development area differ for the various stream reaches and the reaches roughly correspond to existing data stations. DEQ is developing standards for electric conductivity (EC), a measure of the dissolved substances in the water and sodium adsorption ratio (SAR). EC for the Powder River is about 1,700 $\mu\text{S}/\text{cm}$. EC is not an exact number and depends on the database being used and time of year that is being considered. The saltier the water the more energy plants expend to get the water out of the saline solution. The EC of the soil water is important because if it is too salty the

productivity of the plant tends to falter. The EC in the soil water is almost always greater than the EC of the irrigation water because part of the water that is applied evaporates and part is used by plants but essentially none of the salt is used therefore the salt remains in the soil. Excess water must be applied to the soil to leach the salts out of the soil. Plant thresholds are different for soil water and irrigation water.

The material that was presented to the council before did not take rain into account and the references cited hold only for arid climates with zero rainfall. As leaching fraction increases the EC in the soil and irrigation water equalize. With rainwater taken into consideration, the effective EC in the soil will decrease. Assuming there is 14 inches of rainwater, 28 inches of water applied to the soil, and all the water put on the soil is mixed before there is any leaching, gives a correction factor of 1.5. The 1.5 correction factor is an average number to account for rainfall. The correction factor is applied to the threshold numbers for soil salinity published in the April draft to come up with the numbers in the current draft.

Mike McLane asked if the precipitation numbers used were total precipitation or effective precipitation during the irrigation season? If it is total precipitation, is it fair to use it as part of the leaching factor?

Abe Horpestad said that in theory if rainfall evaporates and does not penetrate the soil it should not be used in the calculations. If there is rain in the fall or winter and is still in the soil in the spring it should be used in the calculations. It is difficult to separate the two. The 14 inches of rain is an average for the total of rain in that area.

Steve Gilbert of the Northern Plains Resource Council said that the difference between approximates and averages and how they affect things was mentioned. Is it not also important to consider that 50-70% of soils in the Tongue River valley are fine-textured and do not get 15% leaching fraction? Shouldn't it also be considered that during a single irrigation season there might not be average precipitation and have excessively low flows in the river so the average impact of EC is much higher?

Abe Horpestad said that the effect of salinity on soils is an averaging procedure. It will probably take the soils four or five years to be in equilibrium with the salinity of the irrigation water. It is not an acute situation, so the use of averages is appropriate. In terms of leaching fraction, some areas will only have 5% and others will have 50%. This variable percentage should be considered when looking at safety factors but it is difficult to assess what is actually happening in the area. There is no recent data on the actual percentage of leaching fraction that is achieved in the Tongue River drainage basin. There is data from 1977 concerning leaching fractions on the Powder River indicating that the average leaching fraction for soils with drainage was about 30% and those without drainage was close to 0%. Many irrigators talk about delivery losses, which includes leaching and ditch loss. The different leaching fraction assumption for the Tongue River is because the water is in essence considered good quality water. The average leaching fraction is 15% where there is enough good quality water. The best

information indicates that if we use these numbers during irrigation season this will lead to no effect levels for dry beans and strawberries.

Steve Gilbert said that these numbers apply a correction factor that assumes a certain annual precipitation. If there is a third of that annual rain and there are low flows in the river made up of higher EC waters, these numbers do not apply. One irrigator lost both soil and crops from one year of irrigation. Irrigators should not be put out of business because of assumptions.

Abe Horpestad said that DEQ has heard of such an incident but it has not been substantiated and the values that were there should not have caused those infractions. Other causes were probably the cause of this incident.

Mark Fix said that the scientists from Wyoming did a study on that field and the results indicated the cause was magnesium burning which is a component of CBM water.

Abe Horpestad said that no information concerning these results has been received by DEQ but we will look into it.

These EC standards would apply during the irrigation season. There is some water demand by riparian plants outside of the irrigation season and there could be some storage during the non-irrigation season in the banks. An upper EC limit that applies year round has been set at 2000 $\mu\text{S}/\text{cm}$.

SAR is the measure of the abundance of sodium relative to calcium and magnesium. The soils tend to disperse or break apart if the SAR is too high relative to the EC. This causes the clay in the soil to break up and plug up the soil preventing water from percolating into the soil. Studies on various types of soils have been done on the relationship of EC and SAR and produced a formula that would result in no reduction of infiltration in the soil. This formula is used in the draft rules. Soils come into equilibrium with the irrigation water chemistry. The SAR formula has a square root function in it and as the water is diluted, the EC goes down faster than SAR. Precipitation takes the soil that is in equilibrium with irrigation water and causes EC to drop rapidly with SAR decreasing more slowly and possibly plugging up the soil. Regardless of the EC formula, 5 is the cap in the draft standards for SAR and should protect against rain plugging up soils. The formula would no longer apply once SAR reached 5.

This draft has standards that would apply year round and standards that would apply only during the irrigation season. Standards are expressed in terms of shall not be caused to exceed the existing water quality in these drainages with the exception of parts of the Tongue which may exceed the standards that are proposed at times. Section 2 of the rules is for the year round standards. The last statement of section 2 may need to be removed because it is uncertain whether the state standards apply to those parts of the reservations owned by non-Indians.

Doug Parker asked for an explanation of what the text in the parentheses means. There was no clear indication of this in the draft.

Abe Horpestad said that the parts in parentheses are there to allow the Board of Environmental Review to adjust the numbers to be within that range depending on public comments received. This will confuse people, as it was not clearly covered in the introduction of the draft rule. When this is sent out to the public it will be explained in detail in the introduction.

Section 3 dealing with ponds for disposal of CBM water may need to be removed. Those ponds under our current standards would have to meet drinking water standards. Under this proposal the ponds would have an upper limit of 3000 $\mu\text{S}/\text{cm}$ and the human health standards would not apply. Wyoming is currently disposing CBM water through the use of infiltration ponds and new ponds will not be constructed in drainage ways and any evidence of seepage or leakage to the surface will be a violation of the permit. There have been a few cases in Wyoming where holes have been made at the bottom of these ponds to increase the infiltration rate. In Montana these ponds for CBM are excluded from the requirements of a ground water permit and non-degradation requirements because the Board of Oil & Gas regulates them. It is difficult to determine how to regulate these ponds.

Barb Butler asked if they are purposely putting holes in the bottom of these ponds for infiltration, why don't they qualify as a class 5 injection well?

Julie DalSoglio of EPA said that Wyoming class 2 permits would have injection wells.

Doug Parker said that with ponds there is a situation where water will evaporate and the concentrations will increase until it is no longer in compliance. Is this going to have any effect on existing stock ponds?

Abe Horpestad said that Wyoming's ponds show that they will leak enough to prevent the concentrations from getting too high. It is unclear if this will have any effect on stock ponds. This rule was created as a placeholder and will probably come out. Wyoming is trying to prove to EPA that the ponds built out of the drainage ways are not waters of the USA and therefore are not subject to EPA regulation.

Steve Gilbert said that DEQ should consider that a percentage of the pond water is going to discharge to the surface directly or discharge subsurface and reach surface waters. Regardless of what Wyoming does to correct and prevent this from happening, damage is being done right now.

Abe Horpestad said that DEQ's draft general discharge permit does contemplate discharge during severe rainstorm events. It says that there shall be no discharge for a precipitation event of less than the 24-hour 25-year storm.

Downstream uses and resources are protected in the draft standards. The Tongue River increases in EC from 550 $\mu\text{S}/\text{cm}$ to 750 $\mu\text{S}/\text{cm}$ going from the border to Miles City and the relationship is factored into the standards. The draft standards include an allocation of the assimilative capacity based on the percentage of reasonably foreseeable CBM wells in each reach. However, DEQ does not have to allocate assimilative capacity. Unless taken into account, the first person to discharge CBM water into the river could use all of the assimilative capacity. The draft standards allocate 18% of the assimilative capacity on the Tongue River to Wyoming. The data station on the Tongue River at the state line is at the first crossing of the state line and is operated by Fidelity Gas Co. The second crossing has Prairie Dog Creek, which is a major development of CBM on the Wyoming side. The allocation for CBM in Wyoming in this second loop may not be adequately dealt with in the draft standards.

75-5-203 says that DEQ cannot be more stringent than federal standards unless the Board makes certain findings including: that the proposed rule protects public health or the environment; are achievable under current technology and peer reviewed scientific studies; and must give information regarding the cost to the regulated community. TMDL rules and federal guidance do allow for allocation. If that federal guidance can be used here, these standards should not be considered more stringent than the federal guidance. If assimilative capacity is not allowed in the standards, the standard for the entire Tongue River could be 1100 $\mu\text{S}/\text{cm}$ and could be used up by a few developers leaving no room for development in the rest of Montana or for the Tribes. Customarily it is first come first served, and Wyoming does not have to leave room for Montana development. There is a protective TMDL being worked on that could be used to allocate the loads, which would allow pollutant trading and have more flexibility. EPA will become involved in a cross border TMDL if one is done and represent the upstream state. A compact could also be created to allocate the loads, which could be simple or complex but time consuming.

Doug Parker asked when the proposed rules are going to be presented to the Board? There seems to be a lot of questions and problems in the proposed rules.

Abe Horpestad said that the proposed rules would go to the Board to request rulemaking on June 7th 2002. A copy of the notice will be mailed to the members.

Doug Parker said that this will be the last opportunity WPCAC will have to comment on it and the Council does not have a copy of the final version that will be presented to the Board. If the proposed rules are not ready now, how is it they will be ready by June 7th? What processes will DEQ go through and what changes will have to happen to get there?

Abe Horpestad said that currently the biggest unknown is if these proposed rules are more stringent than federal standards and can DEQ make the required showings? If the proposed rules are more stringent and DEQ can make the showings DEQ will continue with the present draft. If DEQ cannot make the showings, the draft rules will change to have no allocations. Another issue of concern is the CBM water storage ponds.

It is likely this section will be removed due to comments on it. There are no other foreseeable changes that will be made to the proposed rules.

Richard Parks said that there is some concern in the changes in the numbers between the draft made available six weeks ago and the current draft. There is some concern of the Board receiving a draft with a similar amount of changes. The non-degradation rule was not part of the newest version of the draft rules. The assimilative capacity will be allocated by stream reach for the sole purpose of CBM development and leaves no room for other future uses that may come about.

Abe Horpestad said that the rationale behind the standards is not likely to change much in future drafts. The non-degradation rule attached to the previous draft will still apply. DEQ would not be changing how it deals with non-degradation for EC and SAR and would treat non-degradation for these as a narrative standard. It is difficult to foresee any other type of development in the basin that would affect EC or SAR other than CBM. If this is a concern, DEQ could start allocating less than the calculated assimilative capacity. Within the stream reaches the assimilative capacity is on a first-come first-served basis.

Doug Parker asked if there are any consequences of the standards to irrigators if the standards are done by stream reach and irrigation return flows go through evaporation/transfer cycle that raised EC? Is it potentially going to get to the point of the irrigation return flow values rising and being in violation of the standards?

Abe Horpestad said that the increase that occurs now from the border to Miles City was factored into the standards and is partly due to irrigation return flows. There are no surplus waters so DEQ does not expect a change in the return flows. The only way irrigation return flow could be in violation of the proposed standards would be if there was a significant amount of new irrigation.

Richard Parks said that soil becomes adjusted to the quality of water that is applied to it. It is difficult to wean soils from the application of water once it is applied. As CBM development dwindles and the water is no longer available, there could be severe impacts on the lands to which the water was applied. Standards should be applicable in the absence of CBM water.

Abe Horpestad said that these are water quality standards and will apply regardless of the quantity of water available. On the currently irrigated land, the standards that are being proposed will protect those lands. A developer putting in an irrigated plot of land in an upland area as a way to dispose water will only have the standards apply if the water infiltrates or moves laterally to reach the river and possibly violate standards.

Barb Butler asked if the standards are established for each stream reach, how could they not be incorporated into the TMDL program.

Bob Raisch said that the standards drive the TMDL process. The TMDL process is for streams or waterbodies that are exceeding the standards and the TMDL will indicate what is needed to bring those waters back into compliance. These waters are not going to be impaired for these parameters. The waters are better than the standards being proposed. A protective TMDL could be done but it is not required of DEQ.

Richard Parks said that with the formulae it might be difficult for a water user to work through the numbers unless DEQ can provide specific values as an example of the calculation.

Abe Horpestad said that this clarification would occur in the drafting of the permit through the use of permitting rules. Having a formula as a standard is possible but difficult. Potential dischargers should come in early with an outline of the project, including the water volume and quality, to inquire as to the exact permit limits.

Greg Petruska said that Fidelity agrees that water quality should be protected, but we believe that the current narrative standards used nation-wide are adequately protective. The narrative standards are not broken and do not need to be fixed. No other state that had CBNG production has found it necessary to set numeric standards for EC or SAR. To my knowledge, South Dakota is the only state that had set a standard for SAR to protect for irrigation use and that number is 10-double the maximum SAR 5 currently proposed by the MDEQ.

The MDEQ effort to set numeric standards is unilateral-it is not involving the participation of Wyoming. Contrary to Dr. Horpestad's supposition that by setting numeric standards, Montana will be subjected to less legal action, I think the probability is for more legal challenge coming from the affected states, Tribes, environmental interests and industries, including possibly municipalities and agriculture. It is worth noting that Wyoming has been issuing NPDES discharge permits for going on 10 years using the narrative standards without being beleaguered with lawsuits.

Regarding the specific proposed numeric standards, the latest proposal confirms that numeric standards are not workable for SAR and EC. Numeric standards are appropriate when one standard can be devised that is protective in all, or most settings. By proposing different reach and stream specific values for EC, the MDEQ is simply confirming that the better way to implement protection for irrigation use would be by means of using permitting guidelines under the current narrative standards and taking site-specific considerations into account. The current proposal illustrates that MDEQ's repeated attempts to come up with a workable numeric standards proposal has failed. The current proposal is an extremely complex set of rules that is difficult and cumbersome to understand and apply. To illustrate just how complex, the MDEQ found it necessary to release just this past Tuesday, May 7, a significant revision to the Draft dated April 26 that was to be presented to the WPCAC today. Aren't these issues too important to be running on the fly like this?

It looks like MDEQ is misusing the standard-setting process to do a makeshift TMDL, and this highlights another problem. A flaw in MDEQ's current approach is that it has characterized existing load, which is contributing to the increasing EC and SAR values in the streams, as natural, failing to identify how much is really natural and how much is from non-point sources. This existing load must be correctly identified to properly allocate the assimilative load capacity. A standard, if one is set, must not discriminate for or against particular types of dischargers.

An artifact of the proposed standards is that storm water runoff may not meet the proposed standards for the combination of EC and SAR. And how will these severe restrictions affect municipality discharges when their permits are renewed and these new criteria are included? Will they have to add back salts after treatment so that the EC will be high enough to qualify? Furthermore will irrigation return flows now become illegal because they will certainly not meet the MDEQ-proposed standards? Dr. Blain Hanson said in a discussion with Dr. William Schafer, that he would not endorse using the graph MDEQ's EC-to-SAR conversion equation is based on to set numeric standards.

Although it makes sense to consider long-term base values when determining allowable discharges, another confusing point about the proposed standards is how will one determine allowable current discharges based on average EC values for the current irrigation season? The current season average won't be known until the end of the season.

A final concern is the way the MDEQ proposal deals with non-degradation. The proposal is to apply the non-significance rule that applies for narrative standards, even though the agency would be adopting numeric standards. This approach is enough by itself to make the argument that numeric standards are not appropriate for SAR and EC. We believe that a reviewing court would invalidate this rule, on the basis that non-significance is determined by a different method for all other numeric criteria.

The bottom line is that the MDEQ has unilaterally set out on this standards setting process without fully understanding all of the science available to them, consulting with other entities for their experience and input, or understanding the problems and ramifications of their actions. In their reckless pace to set the proposed standards, the MDEQ is demonstrating that they are nowhere near ready to set the numeric standards.

Fidelity encourages the WPCAC and the BER to advise the MDEQ to go back and fully research the scientific, cross-border and industry issues that would be impacted by their actions. We also encourage the MDEQ not to act in a vacuum in their efforts. One possibility is that the MDEQ could establish a technical advisory committee, similar to that formed by the DNRC to work on Powder River Basin groundwater technical issues. A unilateral, authoritative approach is hardly the way to establish a positive working relationship with other interested parties.

Steve Gilbert for Northern Plains Resource Council said that he would like to applaud WPCAC for previously supporting numeric standards and DEQ for their efforts in developing numeric standards. A lot of science has been looked at for this issue. The

soil scientists working for Northern Plains Resource Council CBM Task Force has different numbers than DEQ and maintain the initial April 26 numbers set by DEQ were not protective of beneficial or future uses on Tongue River. The soil scientists recommendations are dramatically lower than April 26 numbers. The present numbers set by DEQ are significantly higher and throw out the possibility of using non-degradation review to add further protection. I would like to suggest that WPCAC advise BER that it is appropriate to go forward with numeric standards and that the Tongue River Irrigators are concerned that the information provided in the draft rule are not protective enough.

Harmon Ranney for MCBNGA said that to deal with the general discharge permit specific to ground water exclusion DEQ should look to the Board of Oil & Gas. Although DEQ cannot stipulate ground water protection measures, the Board of Oil & Gas can stipulate protective monitoring measures in their permit to cover the groundwater issues. The proposed standards have too many different sets of limits for the different reaches that are confusing to potential developers.

Brenda Lindlief Hall said that the Tongue River Water Users Association is in favor of numeric standards. It is necessary to have various standards for various waterbodies due to the various soil types. Narrative standards will not work because of the numerous variables that need to be taken into account.

Richard Parks said that it is interesting to receive critique that DEQ is moving too rapidly to develop numeric standards when the whole process has been driven by an indecent rush to development without having considered the implications of that development. The schedule for doing the CBM EIS was set externally without regard to completing the studies that allow for proper analysis. DEQ should not be faulted for doing the best it can to catch up with the demand. The whole process needs to be stopped until everything can get caught up.

Mark Fix an irrigator said that from 1998 to 1999 the salt levels on his soil went from 0.29 to 1.17. After looking for the cause of the increase, SAR was tested. One field had an SAR of 3 when the rest were at 1.2-1.5. This increase in SAR and salt was before DEQ issued the Fidelity MPDES discharge permit when they were discharging more than the 1600 gallons per minute allocated to the Tongue River. Now the salt levels in that field are half of what they were in 1999. The soil was tested deeper and it was found that the 0-6 inch layer was half as much but the 6-24 inch layer was still 0.9. The salts are getting leached deeper into the soils. Direct numeric standards are needed and I fully support them. Daily water samples taken near the ranch reached 1500 EC last week and may not be usable this year. All uses need to be protected not just the more salt tolerant crops.

Doug Parker said that there is going to be an increased load and there should be some discussion between the agriculture community and industry to discuss the allocation issue without dealing with exact numbers.

Steve Gilbert said that irrigators do not want any allocation and the soil scientists say that there is no assimilative capacity anywhere on the river. Irrigators feel that if there are allocations and assimilative capacities, it will reduce their ability to produce crops. Are we willing to sacrifice the productivity of one industry for the success of another industry? The science indicates there will be an effect. Irrigators are warned that the water may not be usable this year due to low snow packs, historic low levels in the lake and Tongue River Reservoir, and increasingly high SAR and EC in the water. This is without any real development and the problem would increase when CBM development starts.

Greg Petruska said that the DEQ and other expert's information have indicated there is assimilative capacity in the river. There is an assumption being made that there has to be numeric standards to have legal protection. The same science is available for narrative standards. Guidelines on the rules can be set for narrative standards that will be available to the permit writers and be as protective as numeric standards.

Don Skaar said that he is in support of development of numeric standards and feels that it is based on defensible information. The decision to exempt the standards from the non-degradation review may be considered arbitrary. All other numeric standards have non-degradation triggers, which are not necessary based on any knowledge of what the additional increment will do biologically.

Abe Horpestad said that DEQ is not changing the threshold for EC and SAR for non-significance under non-degradation. If DEQ does change and treat them as numeric standards and toxins, EC and SAR do not fit in the category of toxins and we cannot justify treating them as such.

Richard Parks adjourned the meeting at 12:10 p.m.